Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-53. (Canceled)

54. (Currently amended) A method of inducing an immune response against human immunodeficiency virus (HIV) or an HIV epitope in a mammal, the method comprising: administering to the mammal a nucleic acid composition comprising ~~a plurality of sets of nucleic acid molecules, wherein each nucleic acid molecule in a set encodes an HIV envelope glycoprotein of a type or genetic clade which is different from a type or genetic clade of the HIV envelope glycoprotein encoded by another set of nucleic acid molecules~~ (a) at least three and no more than five sets of nucleic acid molecules encoding HIV envelope glycoproteins, wherein each of the sets of nucleic acid molecules encodes an envelope glycoprotein of a different primary isolate, and (b) a set of nucleic acid molecules encoding an HIV gag protein; and

~~and~~ administering to the mammal a protein composition comprising a ~~set~~ plurality of sets of isolated HIV envelope glycoprotein molecules of each of the primary isolates in (a),

wherein the nucleic acid composition and the protein composition are administered in amounts sufficient to elicit an immune response against HIV or an HIV epitope in the mammal.

55. (Original) The method of claim 54, further comprising isolating immune cells from the vertebrate mammal; and testing an immune response of the isolated immune cells in vitro.

56. (Original) The method of claim 54, wherein the protein composition is administered after the nucleic acid composition.

57. (Original) The method of claim 56, wherein the protein composition is administered between 4 and 8 weeks after the nucleic acid composition.

58. (Previously presented) The method of claim 54, further comprising testing for a cell-mediated immune response.

59. (Previously presented) The method of claim 54, further comprising testing for a humoral immune response.

60. (Previously presented) The method of claim 59, wherein a neutralizing humoral response.

61-80. (Canceled)

81. (Previously presented) The method of claim 54, wherein a cell-mediated immune response is induced.

82. (Previously presented) The method of claim 54, wherein a humoral immune response is induced.

83. (Previously presented) The method of claim 82, wherein a neutralizing humoral immune response is induced.

84. (Previously presented) The method of claim 54, wherein the nucleic acid molecules comprise DNA plasmids.

85. (Previously presented) The method of claim 54, wherein the HIV envelope glycoproteins encoded by the nucleic acid molecules comprise one or more of gp120, gp140, gp160, and gp41.

86-87. (Canceled)

88. (Previously presented) The method of claim 85, wherein the HIV envelope glycoproteins encoded by the nucleic acid molecules comprise a gp120 envelope glycoprotein.

89-93. (Canceled)

94. (Currently amended) The method of claim [[93]] 54, wherein the nucleic acid composition comprises a set of nucleic acids encoding ~~envelope glycoprotein is~~ an envelope glycoprotein of a B715 isolate.

95. (Canceled)

96. (Previously presented) The method of claim 54, wherein one or more of the sets of nucleic acid molecules comprises optimized codons.

97-99. (Canceled)

100. (Currently amended) The method of claim [[98]] 54, wherein the envelope glycoprotein of each set is selected from the group consisting of gp120, gp140, gp160, and gp41.

101-106. (Canceled)

107. (Currently amended) The method of claim [[106]] 54, wherein the protein composition comprises a set of envelope glycoprotein molecules ~~envelope glycoprotein is an envelope glycoprotein~~ of a B715 isolate.

108-110. (Canceled)

111. (New) The method of claim 54, wherein the nucleic acid composition comprises sets of nucleic acid molecules encoding envelope glycoproteins of at least three different clades.

112. (New) The method of claim 54, wherein the nucleic acid composition comprises sets of nucleic acid molecules encoding envelope glycoproteins of at least four different clades.

113. (New) The method of claim 111, wherein the at least three different clades comprise clade B, clade C, and clade E.

114. (New) The method of claim 112, wherein the at least four different clades comprise clade A, clade B, clade C, and clade E.

115. (New) The method of claim 54, wherein the nucleic acid composition comprises a set of nucleic acid molecules encoding an envelope glycoprotein of a Ba-L isolate, and the protein composition comprises a set of isolated envelope glycoprotein molecules of a Ba-L isolate.

116. (New) The method of claim 94, wherein the nucleic acid composition further comprises a set of nucleic acid molecules encoding an envelope glycoprotein of a Ba-L isolate.

117. (New) The method of claim 107, wherein the protein composition further comprises a set of envelope glycoprotein molecules of a Ba-L isolate.

118. (New) The method of claim 54, wherein the set of nucleic acid molecules encoding the gag protein encodes a gag protein of clade C.

119. (New) The method of claim 115, wherein the gag protein is a gag protein of a Czm isolate.

120. (New) The method of claim 54, wherein the set of nucleic acid molecules encoding the gag protein comprises optimized codons.

121. (New) The method of claim 54, wherein the protein composition is administered with an adjuvant.

122. (New) The method of claim 118, wherein the adjuvant is QS-21.